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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,026	03/26/2004	Peter R. Munguia	42P18957	8408

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BLAKELY SOKOLOFF TAYLOR & ZAFMAN  
12400 WILSHIRE BOULEVARD  
SEVENTH FLOOR  
LOS ANGELES, CA 90025-1030

EXAMINER

RAY, GOPAL C

ART UNIT PAPER NUMBER

2111

DATE MAILED: 12/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/810,026

Applicant(s)

MUNGUIA, PETER R.

Examiner

Gopal C. Ray

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 November 2005.  
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-18 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 26 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

1. Applicant's election without traverse of Group I, claims 1-18 in the reply filed on 11/14/05 is acknowledged. Claims 1-18 are presented for examination.
2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The examiner believes that the title of the invention is broad. A descriptive title indicative of the invention will help in proper indexing, classifying, searching, etc. See MPEP 606.01. However, the title of the invention should be limited to 500 characters.
3. The drawings filed on 3/26/04 are acceptable by the examiner for examination purposes. However, the Office of Initial Patent Examination (OIPE) reviews drawings initially for publication purposes. Direct any inquiries concerning drawing review for publication purposes to the Office of Initial Patent Examination (OIPE). See MPEP 507 for detail information.
4. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification. Furthermore, all claims should be revised carefully to eliminate all grammatical errors and antecedent basis problems.
5. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-4 and 9-14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over US Patent 6,484,222 granted to Olson et al. in view of US Patent Application Publication US 2005/0044442.

As per claim 1, the reference of Olson et al. teaches "a variable bus" in Fig. 2, element 85 and col. 1, lines 22-25; "first and second units coupled to the variable bus" in Fig. 2, elements 60, 70, 80 and 90 (consider any two devices connected to their respective slots) and "an arbitration and bus clock unit to adjust the variable speed bus frequency depending on the bandwidth requirements of the first and second units, the arbitration and bus clock control unit to monitor request rates from the first and second units in order to determine bandwidth requirements" in Fig. 2, elements 75, 77, 100 and col. 3, lines 37-62.

The reference of Olson et al. fails to expressly teach "adjustment of variable speed bus frequency depending on the bandwidth requirements of the first and second units". However, the above feature was well known to one of ordinary skill in the data processing art at the time the invention was made as evidenced by US Patent Application Publication US 2005/0044442. US Patent Application Publication US 2005/0044442 teaches the feature in Fig. 5, step 506. It would have been obvious to one of ordinary skill in the data processing art at the time the invention was made to modify the system of Olson et al. to implement the above features of US Patent Application Publication US 2005/0044442 to obtain the claimed invention because it is merely one of several straightforward possibilities already known in the data processing art from which one of ordinary skill in the data processing art at the time of the invention would select in accordance with circumstances without the exercise of inventive skill. The reference of Olson et al. already teaches the selection of speed of a variable speed bus based on the capabilities of the devices and the above feature of US Patent

Application Publication US 2005/0044442 would allow the system of Olson et al. to optimize performance of computer devices without exceeding a computer system's power or thermal budget (US Patent Application Publication US 2005/0044442 teaches the motivation in col. 1, paragraph 0005).

As per claims 2-4, US Patent Application Publication US 2005/0044442 teaches "a processing unit, video processing unit, hard disk drive" in paragraph 0046, lines 3-6. The motivation for combining the references presented in claim 1 above is also applicable here.

As per claim 9, the reference of Olson et al. teaches the added limitation of the claim in col. 4, lines 50-56.

As per claim 10, the limitations of the claim are similar to claim 1. Therefore, the claim is rejected for similar reasons as discussed in the rejection of claim 1 above.

As per claim 11, the reference of Olson et al. teaches "a bus interface logic unit" in Fig. 3, element 100.

As per claims 12-14, the added limitations of the claims are rejected for the same reasons as discussed in the rejection of claims 2-4 respectively.

7. Claims 5-8 and 15-18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over US Patent 6,484,222 granted to Olson et al. in view of US Patent Application Publication US 2005/0044442 and further in view of common knowledge in the data processing art.

As per dependent claims 5-8, the claims are rejected for the same reasons as discussed in the rejection of claim 1 with the exception of claiming various alternatively useable units for isochronous data transfer. The examiner takes Official Notice that the claimed features are well known in the data processing art at the time of the invention. It would have been obvious to one of ordinary skill in the art at the time the invention

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was made to modify the system of Olson et al. to implement the above features to obtain the claimed invention because these are straightforward possibilities from which one of ordinary skill in the art at the time the invention was made would select in accordance with circumstances without the exercise of inventive skill in order to allow the system of Olson et al. to be compatible with a widely used standard and to allow the system to take advantage of the many benefits provided by those features.

As per claims 15-18, the added limitations of the claims are rejected for the same reasons as discussed in the rejection of claims 5-8 respectively.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is urged to consider the references. However, the references should be evaluated by what they suggest to one versed in the art, rather than by their specific disclosure.

If applicants are aware of any prior art better than those are of record, they are required to bring the prior art to the attention of the examiner. Applicants are also reminded that each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in 37 CFR 1.56. Applicants are advised to submit any information material to patentability in accordance with 37 CFR 1.97 and 1.98.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gopal C. Ray whose telephone number is (571) 272-3631. The examiner can normally be reached on Monday - Friday from 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart, can be reached on (571) 272-3632. The fax phone number for this Group is (571) 273-8300.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [**mark.rinehart@uspto.gov**].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to TC central telephone number is (571) 272-2100. Moreover, information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lastly, paper copies of cited U.S. Patents and Patent Application Publications ceased to be mailed to applicants with office actions as of June 2004. Paper copies of Foreign Patents and Non-Patent Literature will continue to be included with office

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actions. These cited U.S. Patents and Patent Application Publications are available for download via Office's PAIR. As an alternate source, all U.S. Patents and Patent Application Publications are available on the USPTO web site ([www.uspto.gov](http://www.uspto.gov)), from the office of Public Records and from commercial sources. Applicants are referred to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197 for information on this policy. Requests to restart a period for response due to a missing U.S. Patent or Patent Application Publications will not be granted.

*Gopal C. Ray*  
**GOPAL C. RAY**  
**PRIMARY EXAMINER**  
**GROUP 2100**